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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,395	04/01/2004	Roy C. Krohn	KRO 0131 PUS1	9594
22045	7590	09/15/2005	EXAMINER	
BROOKS KUSHMAN P.C. 1000 TOWN CENTER TWENTY-SECOND FLOOR SOUTHFIELD, MI 48075			BERMAN, SUSAN W	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 09/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/816,395	Applicant(s) KROHN, ROY C.	
	Examiner Susan W. Berman	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 9-19 and 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9-19 and 22-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>6/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Handwritten signature/initials.

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Response to Amendment

Applicant's arguments filed 06/30/2005 have been fully considered but they are not persuasive.

Sack et al teach polyether acrylates and employ ethylene glycol dimethacrylate in the Examples.

Applicant's arguments with respect to claims 14 and 28 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments with respect to the obviousness-type double patenting rejection of claims over the claims of 10/703938 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 29-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There is no antecedent basis in claim 27 for the ethylene glycol dicyclopentyl ether acrylate set forth in claims 29 and 30. Claim 30 fails to further limit claim 27, which already recites a pigment and a flow promoting agent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 1-6, 9-11, 13, 15-19, 22-25, 27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sack et al (4,309,486). Sack et al disclose an electrostatic recording material made with a lacquer to form a dielectric layer. See column 3, line 10, to column 4, line 6 and Examples 2, 3 and 4. Compositions comprising mixtures of acrylated oligomers, a monomer such as isobornyl acrylate, micronized polypropylene wax and a photoinitiator are taught. Sack et al teach that the unsaturated pre-polymers may be polyether acrylates and specifically discloses ethylene glycol dimethacrylate (Sartomer SR 206) in Example 3 (see column 3, lines 22-25).

It would have been obvious to one skilled in the art at the time of the invention to provide compositions comprising components taught by Sack et al wherein two acrylated oligomers have different viscosities. Although Sack et al do not mention requiring two different viscosities, the examples comprise different oligomers that would be expected to have different viscosities, thus meeting the instant claim requirements. It would have been obvious to one skilled in the art at the time of the invention to include ethylene glycol dimethacrylate as an unsaturated pre-polymer in the compositions disclosed by Sack et al. Sack et al provide motivation by using this pre-polymer in the Examples. With respect to claim 29, the ethylene glycol dicyclopentyl ether acrylate is considered to be an obvious choice or polyether acrylate in the compositions taught by Sack et al.

Claims 14, 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sack et al (4,309,486), as applied to claims 1-6, 9-11, 13, 15-19, 22-25, 27 and 29-32 above, and further in view of Robson et al (4,045,416). The disclosure of Sack et al is discussed above. Robson et al teach amine acrylates for radiation curable compositions comprising acrylated oligomers and monomers for protective coatings. Robson et al teach that the amine acrylate cure at extremely rapid rates (column 1, lines 18-37, and column 10, lines 15-22):

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It would have been obvious to one skilled in the art at the time of the invention to provide compositions comprising components taught by Sack et al wherein two acrylated oligomers have different viscosities and wherein an ethylene glycol diacrylate is included. It would further have been obvious to one skilled in the art at the time of the invention to include an amine acrylate as acrylated monomer in order to take advantage of the rapid cure rate taught by Robson et al. Sack et al provide motivation by teaching compositions comprising acrylated monomers. Robson et al provide motivation by teaching that amine acrylates can be used in radiation curable compositions for protective coatings and that curing is very rapid.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shustack (5,128,387) in view of Robson et al (4,045,416). Shustack disclose radiation curable coating compositions comprising a bulky (meth)acrylate monomer, a mixture of urethane acrylate and epoxy acrylate oligomers, an adhesion promoter and a photoinitiator. See column 5, line 63, to column 6, line 28. Shustack discloses an ethylenically unsaturated monomer of the formula set forth in column 5 wherein R₂ can be isobornyl or dicyclopentyl oxyethyl (column 5, lines 21-43). Shustack further discloses waxes that can be used in the compositions in columns 9-10. comprising acrylated oligomers and monomers for protective coatings. Robson et al teach that the Robson et al teach amine acrylates for radiation curable compositions amine acrylate cure at extremely rapid rates (column 1, lines 18-37, and column 10, lines 15-22).

It would have been obvious to one skilled in the art at the time of the invention to provide compositions comprising acrylate oligomers taught by Shustack wherein two acrylated oligomers have different viscosities and wherein an ethylene glycol dicyclopentyl ether acrylate is included. It would further have been obvious to one skilled in the art at the time of the invention to include an amine acrylate as acrylated monomer in order to take advantage of the rapid cure rate taught by Robson et al. Shustack provides motivation by teaching compositions comprising acrylated monomers. Robson et al provide

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motivation by teaching that amine acrylates can be used in radiation curable compositions for protective coatings and that curing is very rapid.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-6, 9-19 and 22-32 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13, 15-25 and 27-30 of copending Application No. 10/703,938. Although the conflicting claims are not identical, they are not patentably distinct from each other for the following reasons. The claims of '938 set forth the same components as are set forth in the instant claims except that the formula of the "acrylated monomer" is not specified as in the instant claims. Claims 28-30 of '938 sets forth an ethylene glycol dicyclopentyl ether acrylate.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Mejiritski et al (6,211,262) disclose amine acrylate co-initiators for coating composition comprising acrylate-functional oligomers and monomers.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Susan W Berman whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB
9/13/05



Susan W Berman
Primary Examiner
Art Unit 1711